

- 5 I claim:
1. A modeling compound comprising, in combination,  
resin;  
primary plasticizer;  
stabilizer;  
10 microspheres; and  
rheology modifier.
  2. A modeling compound as in claim 1 where said resin comprises polyvinyl chloride.
  3. A modeling compound as in claim 1 where said primary plasticizer comprises a  
15 monomeric plasticizer.
  4. A modeling compound as in claim 1 where said primary plasticizer comprises a polymeric plasticizer.
  5. A modeling compound as in claim 1 where said stabilizer comprises metal ion which complexes with HCL.
  - 20 6. A modeling compound as in claim 1 where said microspheres comprise dry expanded polymer shells which encapsulate a gas.
  7. A modeling compound as in claim 1 where said rheology modifier comprises a thixotropic agent.
  8. A modeling compound as in claim 1 further comprising a secondary plasticizer.
  - 25 9. A modeling compound comprising, in combination,  
40% - 60% polyvinyl chloride by weight of the compound;  
20% - 25% primary plasticizer by weight of the compound;  
1% - 3% secondary plasticizer by weight of the compound;  
1% - 2% stabilizer by weight of the compound;  
30 15% - 25% microspheres by weight of the compound; and  
1% - 3% thixotropic agent by weight of the compound.
  10. A modeling compound as in claim 9 where said polyvinyl chloride comprises 48.8% by weight of the compound.
  11. A modeling compound as in claim 9 where said primary plasticizer comprises  
35 a monomeric plasticizer.

- 5 12. A modeling compound as in claim 9 where said primary plasticizer comprises a polymeric plasticizer.
13. A modeling compound as in claim 9 where said primary plasticizer comprises 20.7% by weight of the compound.
14. A modeling compound as in claim 9 where said secondary plasticizer  
10 comprises 1.2% by weight of the compound.
15. A modeling compound as in claim 9 where said stabilizer comprises metal ion which complexes with HCL.
16. A modeling compound as in claim 9 where said stabilizer comprises 1.2% by weight of the compound.
- 15 17. A modeling compound as in claim 9 where said microspheres comprise dry expanded polymer shells which encapsulate a gas.
18. A modeling compound as in claim 9 where said microspheres comprise 26.4% by weight of the compound.
19. A modeling compound as in claim 9 where said thixotropic agent comprises  
20 1.8% by weight of the compound.
20. A process for forming a modeling compound, comprising,  
mixing a resin, a primary plasticizer, a secondary plasticizer and a stabilizer to a smooth liquid consistency to create a mixture;  
adding and mixing microspheres to said mixture after said smooth liquid  
25 consistency is achieved; and  
adding rheology modifier after said microspheres are mixed with said mixture.
21. A process for forming a modeling compound as in claim 20 where said resin comprises polyvinyl chloride.
- 30 22. A process for forming a modeling compound as in claim 20 where said primary plasticizer comprises a monomeric plasticizer.
23. A process for forming a modeling compound as in claim 20 where said primary plasticizer comprises a polymeric plasticizer.
24. A process for forming a modeling compound as in claim 20 where said  
35 stabilizer comprises metal ions which complex with HCL.

- 5 25. A process for forming a modeling compound as in claim 20 where said rheology modifier comprises a thixotropic agent.
26. A process for forming a modeling compound as in claim 21 where said polyvinyl chloride comprises 40% - 60% by weight of the compound.
27. A process for forming a modeling compound as in claim 20 where said  
10 primary plasticizer comprises 20% - 25% by weight of the compound.
28. A process for forming a modeling compound as in claim 20 where said secondary plasticizer comprises 1% - 3% by weight of the compound.
29. A process for forming a modeling compound as in claim 24 where said stabilizer comprises 1% - 2% by weight of the compound.
- 15 30. A process for forming a modeling compound as in claim 25 where said thixotropic agent comprises 1% - 3% by weight of the compound.